

PRINTERS & SCANNERS

FAQ

Q My printer always defaults to Letter paper size, so I have to reset it to A4 every time I print. How can I permanently change it?

A This problem is common to several recent printers, including HP's Photosmart C8180 (reviewed opposite). Fortunately, it's easy to fix.

Go to Windows' Control Panel and open Printers and Faxes. Right-click on the printer's icon and select Properties. Go to the Device Settings tab. Under the Form To Tray Assignment heading there should be a pull-down menu labelled Main Tray, Auto, or something similar. Change the entry from Letter to A4. If your printer has multiple paper feeds, you may need to change other entries in the same way.

Go back to the General tab and click on Printing Preferences. Letter type paper may also be set here. Change Letter to A4 anywhere it occurs and click Apply. The default paper size should now be permanently set to A4.

Kat Orphanides

Printers and audio expert

kat@computershopper.co.uk

CANON Pixma iP100 with Battery

★★★★★

£249 inc VAT

From www.printerland.co.uk

EXCLUSIVE



Canon's Pixma iP100 is a battery-powered portable photo printer that can also print on plain A4. It has a high resolution of 9,600x2,400dpi and can take paper sizes from Credit Card to A4, with borderless printing on Credit Card, 6x4in, 7x5in and A4 paper.

The ink cartridges are tiny. One contains pigmented black ink for sharp document-printing on plain paper, and the other is filled with four dye-based inks, including black, to create photographic colours. A separate print head must be installed before you can insert the ink; it can be replaced if it becomes blocked.

You may think £250 borders on extortionate for a portable printer, but the quality of photos was outstanding. Our test images were beautifully detailed, with no soft edges or graininess. Bright colours were vivid and skin tones were lifelike. Low-contrast images, which are a challenge for most photo printers, looked particularly good. Photos weren't printed especially quickly, but nine minutes 50 seconds wasn't long to wait for six 6x4in pictures at this quality. A pair of 10x8in prints took just three minutes 49 seconds. Print speeds were no slower when we used battery power, and a fully charged battery should last for around 300 photos.

Unlike dedicated compact photo printers, the iP100 can print normal documents on plain paper. We expected this to be little more than an afterthought but, to our surprise, text quality was excellent. Standard A4 text documents printed at a fast 7.9ppm with clear, well-defined

text. Draft prints were a little faster at 8.7ppm, with little drop in quality; text was only slightly paler than full-quality prints. The mixed colour document speed of 2.2ppm compares well with most full-sized inkjets.

You can connect the printer to your PC via a standard USB2 port, print directly from a digital camera that supports PictBridge or use an infrared connection to transfer images from a mobile phone. One surprise, given the price, is that the iP100 doesn't have built-in Bluetooth. Instead, you have to pay another £50 for Canon's BU-30 Bluetooth dongle.

At £249, the iP100 costs more than most single-

function inkjet printers, but its portability and high resolution makes it worth the outlay if you're a keen photographer who wants to print top-quality digital photos on the spot.

However, if you only need to print 6x4in photos on the move, Epson's PictureMate 240 (see 'Also consider...' below) produces great-looking prints but costs under £70, with an optional battery pack available for around £33. The Pixma iP100 is the best portable printer we've ever seen, but its purchase price and running costs are too high for most pockets.

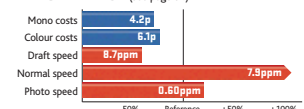
Kat Orphanides

SUMMARY

- ✓ Excellent print quality
- ✓ Portable; wide range of photo sizes
- ✗ Expensive

FIVE-COLOUR INKJET 9,600x2,400dpi maximum resolution, USB Hi-Speed, PictBridge USB, IrDA infrared interfaces, 62x322x185mm, one-year onsite warranty
POWER CONSUMPTION 1W standby, 1W idle, 11W active
PART CODE 1446B008BA
DETAILS www.canon.co.uk

PERFORMANCE (see page 64)



Also consider...

EPSON PictureMate 240

★★★★★

£66 inc VAT

From www.lambda-tek.com/componentshop

COMPUTER SHOPPER
BEST BUY



This mini photo printer combines top-notch print quality with a low price. It can print 6x4in photos at a resolution of 5,760x1,440dpi when connected to a PC. It's also a standalone photo printer, with memory card readers and PictBridge support. A 2½in colour screen lets you preview, edit, and select images. Print speeds aren't the fastest, but the quality makes the wait worth it. Print costs are also affordable at 16.6p per photo from a £25 ink and paper pack.

MICRO-PIEZO INKJET COMPACT PHOTO PRINTER 6x4in photo support, 5,760x1,440dpi maximum resolution, USB Hi-Speed, PictBridge USB interfaces, CF, SD, MMC, MS, xD memory card support
PART CODE C11C660004
DETAILS www.epson.co.uk
FULL REVIEW Apr 2008



CANON Pixma MP520

★★★★★

£73 inc VAT

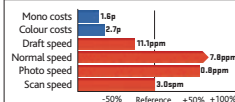
From www.kikatek.com

COMPUTER SHOPPER
BEST BUY



The Pixma MP520 combines an affordable price with quick print speeds and low page costs. Even at draft quality, its text document prints looked great, while its normal-quality prints were laser-sharp. Draft prints were slow, but normal-quality documents printed at 7.8ppm. Photo prints were good, too. The scanner interface doesn't list its top resolution of 1,200x2,400dpi, but you can set this manually. Scans at all resolutions were sharp and accurate.

COLOUR INKJET MFP 4,800x1,200dpi print resolution, 30ppm mono/20ppm colour maximum speed, 1,200x2,400dpi scan resolution, USB Hi-Speed, PictBridge USB interfaces
PART CODE 2178B008AA
DETAILS www.canon.co.uk
FULL REVIEW Jan 2008



HP Photosmart C8180

★★★★

£259 inc VAT

From www.lambda-tek.com/componentshop

HP's Photosmart C8180 MFP is designed with graphic and photographic work in mind. It uses a six-ink system, which is ideal for photo printing. A PictBridge port and a range of memory card slots allow you to print your digital photos without using a computer, and built-in Bluetooth lets you send pictures to it from camera phones. There's even an integrated DVD writer for burning photos directly to disc. LightScribe support means it can burn a label on to the face of the disc.

You can print from a PC via 801.11b/g wireless networking, but the C8180 also has USB2 and 10/100 Ethernet ports. Animated instructions on a large 3½in touch screen take you through every step of configuring the printer and installing the cartridge. Separate trays for plain and photo paper pull out for easy loading, and plastic guides hold the paper in place. The main tray can hold 100 pages of A4, while 20 sheets of 6x4 or 7x5in paper fit in the photo tray.

This is the first MFP we've seen that can scan transparencies; the transparency frame has space for four mounted slides or a strip of six negatives. With an optical resolution of 9,600x9,600dpi and a maximum 48-bit colour depth, the scanner should be capable of great quality. Unfortunately, its

software interface, like many other HP scanners we've reviewed, is poorly designed and irritating to use. It closes after each scan and doesn't retain previews or settings. Transparency scanning feels like an after-thought. Unlike the polished interfaces used by Epson and Canon, HP's scanner driver doesn't create separate thumbnail images of each frame.

Scan quality was unremarkable. Some very fine details weren't captured as sharply as we'd have liked in our tests. Pale shades were accurately captured, but bolder colours weren't as accurate. Transparency scans were vivid, but some dark colours were poorly distinguished.

Low-resolution scans took just a few seconds

and our 1,200dpi photo scan took one minute 41 seconds, but high-resolution scans were far slower. A single 35mm negative at 2,400dpi took almost half an hour. Photos at the maximum resolution of 4,800x1,200dpi looked great, but we had to wait several minutes for prints to dry. We had to wait 18 minutes 24 seconds for six 6x4in photos, and seven minutes 12 seconds for two 10x8in pictures. Yellow tones were slightly oversaturated, but the overall effect was barely noticeable. Photo quality was fine, with no banding and very little graininess.



Print quality wasn't as good in mixed colour documents. Dark images looked grey and speckled at standard quality. Text was easy to read, despite slightly rough edges. The colour print speed of 2ppm is typical for an inkjet MFP.

One of the C8180's best features is a fast, high-quality draft mode, which is ideal for day-to-day printing. Draft text was clearly defined and printed at a phenomenal 15.3ppm. Normal-quality text printed at a rather sluggish 4.5ppm, but was dark and beautifully sharp, with small font reproduction that rivalled many printers in this month's mono laser Labs (see page 102).

Copy quality was mediocre. Text reproduction was good, but images in mono copies were dark and inconsistently shaded, and colour image copies were yellowish.

The Photosmart C8180 is a good printer, with excellent photo and text quality. It's easy to connect to your PC directly or across a wired or wireless network, and it can print digital photos from almost any source. Transparency scanning is a great feature, but the scanner is let down by an irritating interface and painfully slow high-resolution scans. It has every feature you could want, but £259 is a lot of money and we expect few people will want an integrated DVD writer. For this sort of money, you could buy a better-quality scanner and printer separately.

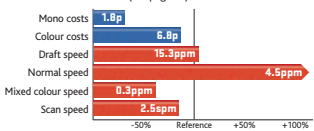
Kat Orphanides

SUMMARY

- ✓ Good-quality photo and text printing
- ✗ Expensive; slow scan speeds
- ✗ Poor scanner interface

SIX-COLOUR INKJET MFP 4,800x1,200dpi print resolution, 34ppm mono/33ppm colour maximum speed, 9,600x9,600dpi scan resolution, USB Hi-Speed, PictBridge USB, 10/100 Ethernet, 802.11b/g wireless networking, Bluetooth interfaces, 216x448x392, one-year RTB warranty
POWER CONSUMPTION 6W standby, 6W idle, 28W active PART CODE L2526B
DETAILS www.hp.co.uk

PERFORMANCE (see page 64)



CANON Pixma iP4500

★★★★★

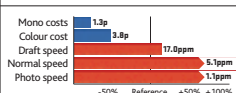
£62 inc VAT

From www.ebuyer.com

This is one of the best budget inkjets we've seen, beating pricier models for speed and quality. It takes five ink cartridges, including both dye and pigment-based blacks to create deep shadows in photos and pin-sharp text. Costs are exceptionally low, making the iP4500 cheaper to run than many laser printers. There's no screen or media card reader, but it does have two paper trays and an automatic duplexer, and can print on CDs.



INKJET PRINTER Five-colour inkjet, 9,600x2,400dpi maximum resolution, USB and PictBridge USB interfaces
PART CODE 2171B008AA
DETAILS www.canon.co.uk
FULL REVIEW Dec 2007



HP Color LaserJet 3600

★★★★★

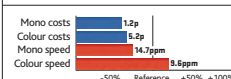
£295 inc VAT

From www.printerland.co.uk

This is a fast USB laser printer with excellent print quality. The only consumable is the toner cartridges, which incorporate the drum. These are economical if you buy high-yield versions, and the device comes with 6,000 mono and 4,000 colour pages' worth of toner. Print speeds were quick at 14.7ppm mono and 9.6ppm colour, and we were impressed by the sharp mono text and accurate colour prints.



HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 17ppm mono/17ppm colour, USB Hi-Speed interface
PART CODE Q5986A
DETAILS www.hp.co.uk
FULL REVIEW Feb 2008



TALLYGENICOM 8108N Colour Laser Printer

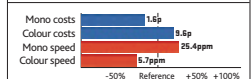
★★★★★

£113 inc VAT

From www.printerland.co.uk

TallyGenicom's 8108N is the cheapest colour laser printer we've ever reviewed. Sharp mono text prints were produced at a phenomenal 25.4ppm. Colour prints were slower (at 5.7ppm) and cost an expensive 9.6p per page, but we were impressed by their quality. The 8108N has both network and USB ports, making it an ideal budget choice for a home or small office, despite its non-replaceable drum.

HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 31ppm mono/8ppm colour, USB Hi-Speed, 10/100 Ethernet interfaces
PART CODE 043792
DETAILS www.tallygenicom.co.uk
FULL REVIEW Feb 2008



HP Officejet Pro K8600

★★★★★

£169 inc VAT

From www.it247.co.uk

Inkjets have their advantages in the office. HP's Officejet Pro K8600 is an A3+ office printer with some of the lowest print costs we've seen from an inkjet or laser. HP hopes this will appeal to small and medium-sized businesses who want to match the speed and quality of a colour laser without the cost and inconvenience of consumables.

At £169, the K8600 is cheaper than most A4 colour lasers. The K8600dn, which has an Ethernet port and an automatic duplexer, costs around £40 more and is more suitable for workgroups. The K8600 is designed to handle all a small office's printing needs, from mono text documents to glossy brochures, projector transparencies or photos. It's better suited to photo printing than most business inkjets, as it has a high resolution and uses dye-based inks, which produce more accurate colours than pigment-based inks.

The standard-size cartridges have generous yields, but the real cost benefit comes from using HP's high-yield XL cartridges. We've used these for our cost calculations. The high-yield black cartridge can print around 2,450 pages and costs just £25 including VAT. This equates to a mono print cost of just 1p per A4 page. Low colour costs bring the total cost of a mixed black and colour page to just 4.2p. That's cheaper than any of the colour laser printers in our recent Labs test (see *Shopper* 240). Ink costs are kept down because the print heads aren't built into the cartridge. The



heads are designed to last the printer's lifetime, but are replaceable.

A large, adjustable paper tray can take paper up to A3+, while heavy media such as card can be fed in by removing a cover at the back of the printer.

Print speeds rivalled most low-end colour lasers. Draft text printed at 17.6ppm and only slightly paler and blurrier than at normal quality, making it suitable for most day-to-day printing tasks. Standard-quality text printed at 13ppm and documents with colour graphics averaged 5.4ppm. A high-resolution A3 graphics print at best quality took just one minute, 14 seconds.

Unlike laser printers, print quality depended on the quality of our paper. Text looked slightly fuzzy on standard 80gsm paper. It was visibly sharper on 100gsm stock. Our A3 and A4 prints looked beautiful, with clear colours and sharp lettering, but again required higher-quality paper to look their best.

The K8600 produces great-looking colour prints and precisely rendered subtle shades. It's cheaper to buy and run than most colour laser printers, and can handle a wider range of media. However, for the best value and results, you'll have to buy decent paper and high-yield ink.

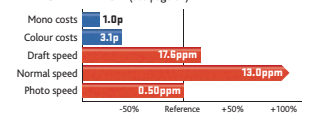
Kat Orphanides

SUMMARY

- ✓ Low printing costs
- ✓ Versatile paper handling
- ✗ Needs quality media for best results

FOUR-COLOUR A3+ BUSINESS INKJET
4,800x1,200dpi maximum resolution, USB Hi-Speed interface, 223x610x420mm, one-year RTB warranty
POWER CONSUMPTION 0W off, 5W idle, 16W active
PART CODE CB015A
DETAILS www.hp.co.uk

PERFORMANCE (see page 64)



CHOOSING A... Multi-Function Peripheral

Follow the steps to find your ideal specs

PRINT TECHNOLOGY: Inkjet
PRINT RESOLUTION: 4,800x1,200dpi
SCAN RESOLUTION: 600x2,400dpi
INTERFACES: USB
EXTRAS:

Recommended minimum in grey

A multifunction peripheral combines a printer and scanner into a single compact unit, and also provides copying and fax facilities. This saves desk space and also money, compared with buying two or more separate devices.

1 Basic models cost as little as £40 including VAT, with specifications similar to those shown in grey above. These are OK if funds and space are tight, but quality and speed will be basic, and copying and faxing may not be possible without the help of the PC.

2 Spending more invariably gives you improved speed and image quality. These improvements aren't directly proportional to price, though, so read our reviews for details. Remember that running costs can outweigh the price of the unit.

3 Sheet-fed scanners handle multiple pages but flatbeds tend to give better image quality. Cheaper models make you choose one or the other, while pricier units combine both features.

4 If you'll be printing hundreds of pages per month, consider a laser rather than an inkjet model. These benefit from improved print speeds and lower running costs, and cost from around £120 including VAT. You'll need to spend a lot more for a colour laser-based machine.

5 To make the most of the standalone functions, you'll want decent front-panel controls. These can vary from a single copy button to something resembling a dedicated copier. If fax is important, you need to check that the device has a built-in modem.

6 Other useful extras to consider are memory card slots, duplexing units for the printer and/or scanner, additional paper trays and an Ethernet port to connect the device to a network.

Also consider...

EPSON Perfection V200 Photo

★★★★★

£59 inc VAT

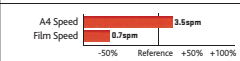
From www.lambda-tek.com/componentshop

Epson's Perfection V200 Photo produces sharp, accurate scans up to a maximum optical resolution of 3,200x9,600dpi. Colour quality is excellent, with particularly good reproduction of pale and bright tones. The software includes a full range of image-correction options, including dust removal for damaged negatives.

The resolution of 3,600dpi may be limiting if you want to make particularly big enlargements, but otherwise this is an excellent choice.



CCD FLATBED SCANNER
3,200x9,600dpi optical resolution, 48-bit colour output, USB Hi-Speed interface
PART CODE B11B188032
DETAILS www.epson.co.uk
FULL REVIEW May 2008



LEXMARK Z1320

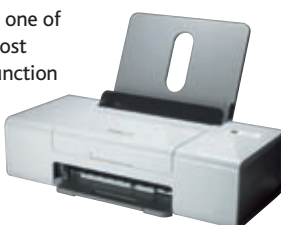
★★★★★

£36 inc VAT

From www.ameiva.co.uk

Lexmark's Z1320 is one of the smallest and most affordable single-function inkjets we've seen.

Unlike most budget inkjets, it combines reasonable print costs and speeds with good-quality document and photo printing. We were impressed by its clear and readable draft documents. Our only complaint is that its output tray is a little flimsy.



FOUR-COLOUR INKJET
4,800x1,200 resolution, USB Hi-Speed interface
PART CODE 20A0402
DETAILS www.lexmark.co.uk
FULL REVIEW Dec 2007

